



The Halifax Amateur Radio Club

# REFLECTOR

PO BOX 663  
HALIFAX NS  
B3J 2T3

February 2006 Volume 67 Number 2

club web site is [www.halifax-arc.org](http://www.halifax-arc.org)



## Happy Valentine's Day



HARC Club Station phone number - 490-6421

See the HARC Web site at: <http://www.halifax-arc.org>

### Our executive and committees.

| Position Name & Call Sign                   | Phone #                          | E-Mail                    |
|---|----------------------------------|---------------------------|
| President - Bill Elliott, VE1MR             | 865-8567                         | ve1mr@rac.ca              |
| First V.P. - Rob Ewert, VE1KS               | 826-1705                         | ewertr@hfx.eastlink.ca    |
| 2nd V.P. - Howard Dickson, VE1DHD           | 823-2024                         | dhdickson@hfx.eastlink.ca |
| Secretary - Murray MacDonald, VE1MMD        | 876-0661                         | twomacds@eastlink.ca      |
| Treasurer - Fraser MacDougall VE1WO         | 865-4198                         | ve1wo@rac.ca              |
| Director-at-Large - Craig MacKinnon, VE1JMA | craig.mackinnon1@ns.sympatico.ca |                           |
| Club Station Mgr. - Brian Allan, VE1AZV     | 489-4656                         | basailor@eastlink.ca      |
| Past President - Dick Grantham, VE1AI       | 434-8046                         | ve1ai@rac.ca              |

### Committees/Offices/Prime Contacts

|   |          |                               |
|---|----------|-------------------------------|
| Public Relations: Wayne Harasimovitch, VE1WPH                           | 835-4865 | ve1wph@rac.ca                 |
| IPARN and Brit Fader Memorial QSL Bureau Manager -<br>Bob Burns, VE1VCK | 865-9414 | ve1vck@rac.ca                 |
| EMO Coordinator - Dave George, VE1AJP                                   | 466-8723 | dgeorge@dal.ca                |
| Reflector editor - Lynn Bowser, VE1ENT                                  | 865-8567 | ve1ent@rac.ca                 |
| Reflector Dist. - Tom Caithness, VE1GTC                                 | 477-7081 | tom.caithness@ns.sympatico.ca |
| Membership - Tom Caithness, VE1GTC                                      | 477-7081 | tom.caithness@ns.sympatico.ca |
| Web page - Rob Ewert, VE1KS   | 826-1705 | ewertr@hfx.eastlink.ca        |
| Basic ham course - Scott Wood, VE1QD                                    | 823-2761 | ve1qd@rac.ca                  |
| EMO Trailer Assembly coord - David Musgrave, VE1EDA                     | 435-4333 | ve1eda@rac.ca                 |
| Flea market Chair - Murray MacDonald, VE1MMD                            | 876-0661 | twomacds@eastlink.ca          |
| Field Day coordinator - Howard Dickson                                  | 823-2024 | dhdickson@hfx.eastlink.ca     |
| RAC Asst Director - Wayne Marchand, VE1WJM                              | 860-1580 | ve1wjm@rac.ca                 |
| NSARA Director - Scott Wood, VE1QD                                      | 823-2761 | ve1qd@rac.ca                  |
| Frequency coordinator for Nova Scotia - Bev Reynolds, VE1TL             |          |                               |

The **General Monthly Meeting** of the Halifax Amateur Radio Club will take place Wednesday, February 15, 2006 at 1930 hours (7:30 PM), at the former Bloomfield School building (corner of Almon and Agricola streets). The meeting will be held in the Multi-Purpose Room. Guest speaker will be Murray VE1MMD on some ideas for the club's 75th anniversary.

Guests are welcome.

## FOR SALE

40 foot Delhi heavy duty tower, \$250 or reasonable offer. Contact Fraser, VE1WO at 865-4198 or [ve1wo@rac.ca](mailto:ve1wo@rac.ca)

## NOTICE

We are looking for people interested in getting fall arrest certification for tower climbing. The next certification will probably be **March** 2006. If interested please contact an executive member

### Take-15 Net Controllers

#### NOTE: There have been some changes.

This will be the rotation. If you cannot take the net on your particular evening get in touch with one of the others and trade places with them. If I have left any one off the list, or you want to join, please let Bill, VE1MR, know.

|          |         |        |
|----------|---------|--------|
| Feb. 12  | Charles | VE1MCR |
| Feb. 19  | Chris   | VA1CDB |
| Feb. 26  | Pierre  | VE1PTR |
| March 5  | Herb    | VE1HX  |
| March 12 | Win     | VE1WIN |
| March 19 | Peter   | VE1PJW |



**March 30th** is the **Basic exam** for the current class. It will be held in the club station and any others interested in writing either the Basic or Advanced exam are welcome. Please contact Bill, VE1MR if you plan to write.

### NOTICE

The Dartmouth repeater autopatch now requires an access code. Contact John, VE1WZ at 434-7095

**Deadline for submissions to the March Reflector is Saturday, March 4, 2006**

## GENERAL INFORMATION



**TAKE-15 NET:** Sunday evenings at 8:30 PM on VE1PSR/VHF

### CLUB REPEATERS:

VE1PSR/VHF - 147.270 MHz +  
VE1PSR/UHF - 444.350 MHz +  
VE1PSR/6M - 53.550 MHz -  
access tone 151.4 Hz  
VE1HNS - 146.940 MHz -

### PACKET:

VE1NSD 145.050 MHz LAN NODE  
VE1BBS - Local packet BBS  
accessible through the LAN

*Events for Your Calendar*

**Amateur Radio EMO Communications Course** is scheduled for February 25 at the EOC (Spicer Building, Dartmouth). The course is open to "first time" students and to those wishing to refresh their skills. And you do not have to be an Amateur Radio operator to take this course. Further details are given in the article "**EMO Training**" in the 3rd column on this page

A **Basic Amateur Radio Course** began on Thursday, 15 September at the Club station room. Course coordinator is Scott Wood, VE1QD.

February 12, 2006 – VE1ALB Memorial Contest (SSB)

February 18 and 19 **Guides on the Air**

**Getting onto the HF Bands** - one-day tutorial/workshop sessions. Reservations are essential. See page 3 in this publication for details on how to reserve your seat at one of the following sessions.

Saturday April 1st PM  
Wednesday April 5th PM  
Saturday April 8th PM

**2006 NSARA Picnic & AGM** – Hosted by the Yarmouth Amateur Radio Club. Tentative date is the 2nd Saturday in August. Contact is Bernie, VE1UT. Check the NSARA website for developments.

The next **NSARA general meeting** will be at the DownEast Fleamarket, mid-May, 2006.

**Field Day 2006** will be the last full weekend in June

**Puzzler– Do You Know?**

Yagi antennas are commonly in use in amateur work. Another antenna in use is called a Quagi. What is it?

Answer to puzzler is on page 9



**The Maritime Contest** this winter. is sponsored by the Fundy Club. Details as follows:

January 29, 2006 –CW section (VE1BBL Memorial Contest)

February 12, 2006 – SSB section (VE1ALB Memorial Contest)

Both sections are on 80m, open to hams in the 3 Maritime provinces only.

Times: 7 – 11 AM and 2 – 6 PM local time

Exchange is: callsign, name, RST, county,. Province and serial #.

Scoring: 6 points per QSO (1 point per correct exchange item) and the counties are multipliers. Also, the Memorial Stations will be a multiplier.

A plaque will be awarded for the first place in each section and certificate will be awarded for the 20+ CW and 40+ SSB contacts.

Entries must be received within 30 days by: Avery Crowell, VE1HS

P.O. Box 82

Digby, NS B0V 1A0  
ve1hs@rac.ca

Hi All, the NSARA has the ability to program many of the commercial radios found on ebay or from local sources. If you are an NSARA Member the programming is a nominal \$10.00 donation. Non Member \$20.00. All monies go towards Amateur Radio Projects.

Regards, 73, Tom Cohoon VE1TA  
President of NSARA, 2005-2006

**REMINDER**

Have you changed your address?  
Got a new call sign?

We need to know your correct address to get the newsletter to you. Please inform Tom Caithness, VE1GTC, of any address changes.

*Do you have a radio-oriented story, question, answer, article, notice, picture or letter to the editor that you would like to share by having it published in the HARC Reflector? Get them to the HARC Reflector editor, Lynn Bowser, VE1ENT (e-mail ve1ent@rac.ca)*

**EMO Training**

Two Level 2 Emergency Radio Communication training courses in February 2006 – Saturday February 11 and February 25 – at the EOC at 21 Mount Hope Ave.

Time 0900 hrs to approximately 1500 hours, bring your own lunch, coffee will be provided.

Course content:

Overview of emergency communications

Radio nets

Message forms

Logs

Message Handling

Radiotelephone Procedures

Pro words used

Discussion session

Practical operation session

You do not have to be an Amateur Radio operator to take this course.

If you wish to take part in this course or refresh your skills please apply to one of the following persons, there is NO charge for this course.

Tom Caithness VE1GTC

Phone 477-7081; e-mail tom.caithness@ns.sympatico.ca

OR

Dave Musgrave VE1EDA

Phone 435-4333; e-mail david.musgrave@ns.sympatico.ca

The **Club station** is a good space for ham radio activities but **please reserve your date & time** with Station Manager Brian Allen, VE1AZV

E-mail basailor@eastlink.ca

To prevent the disappointment of arriving at the Club Station and finding someone else has booked it for the same time you wanted to use it **booking with Brian is a must!!**

*"I have studied many philosophers and many cats. The wisdom of cats is infinitely superior." -- Hippolyte Taine*

## PRESIDENT'S MESSAGE

What a nice winter so far. We have had opportunities to do far more outside work than normal.

Recently it has been brought to my attention that there are a lot of QSL cards building up in the bureau and funds for mailing cards out is low. Currently there are 1134 people with cards and not enough money to mail them out. These 1134 people have \$31.53 on deposit While about twice that many have several thousand on deposit with the bureau. The 1134 people with cards and no money have 11,000 cards sitting in the bureau. These take up space and are not contributing to the expenses of the bureau.

The bureau has minimal expenses above the costs of envelopes, labels and stamps, but they do exist. These expenses must come from a service charge levied on all mail outs. Because many people have little or no money on deposit they are not contributing to the overall expenses.

While the bureau is finally out of a deficit situation which we took over, it would be nice to reduce the service charge on mail outs as well as reducing the number of cards stored in the bureau. If all people with cards in the bureau kept a minimum of \$5 on deposit the service charge could be lowered and the space required to store cards would be reduced.

The normal procedure is to mail cards to a person when they have 5 or more cards in the bureau and then once a year mail out cards to those with less than 5 cards. This reduces the mailing cost per card and tries to preserve the persons money by reducing the service charges. If you pick your cards up at a flea market or in person from the bureau you will still be charged the service charge but will save the cost of postage. If the bureau can increase the number of people receiving card then the service charge can be reduced.

I have included on this page a list of people in the local area who should send money to the bureau.

73 - Bill, VE1MR

The following people have 5 or more cards in the QSL Bureau but not enough money for a mail out. If you know any of these people please tell them they should send at least \$5 to the Bureau. This list represents about 1700 cards. I have left out the other 100 or so who have cards but no money. Send funds to: Brit Fader Memorial QSL Bureau P.O. Box 8895

Halifax, NS B3K 2M5

|        |                  |    |
|--------|------------------|----|
| VA1AA  | BILL MCFADDEN    | 11 |
| VE0MBJ | LOUIS ST LAURENT | 14 |
| VE1AA  | JAMES THOMPSON   | 35 |
| VE1AAF | JOE MOSHER       | 10 |
| VE1AAJ | BEN FULLERTON    | 6  |
| VE1ACD | GERALD LAPIERRE  | 5  |
| VE1AD  | CARL SOLLOWS     | 55 |
| VE1AFG | GERRY LAPIERRE   | 9  |
| VE1AFT | CURT MCSWAIN     | 5  |
| VE1AGV | MATT JANEGA      | 7  |
| VE1AHK | JOHN MATHESON    | 5  |
| VE1ALU | B SABEAN         | 8  |
| VE1ANN | MURRAY COOPER    | 7  |
| VE1ANT | RAY SMITH        | 13 |
| VE1AOD | BERTHA DUCHESNE  | 5  |
| VE1AOR | RICHARD HARTEN   | 5  |
| VE1AR  | MIKE SHACKLOCK   | 9  |
| VE1ARJ | IAN JOHNSON      | 8  |
| VE1ASR | JIM CHRISTIAN    | 5  |
| VE1ATA | MUIR SMITH       | 6  |
| VE1AUF | ART HANSEN       | 16 |
| VE1AWH | JOHN MACKINLEY   | 7  |
| VE1BAA | RAY GINSBERG     | 5  |
| VE1BAR | GERALD CAMPBELL  | 7  |
| VE1BBK | BRUCE SKIBA      | 9  |
| VE1BEL | MARK HEMPHILL    | 11 |
| VE1BKB | KEITH BENNETT    | 10 |
| VE1BLZ | PETER NICKERSON  | 5  |
| VE1BMD | BRIAN DEVANNEY   | 9  |
| VE1BMJ | TOM GAUM         | 9  |
| VE1BNZ | BILL SANDERSON   | 6  |
| VE1BSA | JOE PATIL        | 8  |
| VE1BSB | BOB SPEARNS      | 7  |
| VE1BSQ | JOE EARLES       | 18 |
| VE1BWJ | CAROLINE SCOTT   | 7  |
| VE1BYP | JOSE CORREIA     | 6  |
| VE1CAB | BILL WEBBER      | 36 |
| VE1CAN | MIKE FOUGERE     | 19 |
| VE1CAO | MARK LEGATE      | 9  |
| VE1CBX | PAUL STEWART     | 5  |
| VE1CET | GAETAN TREMBLAY  | 7  |
| VE1CRS | CLUB S.A.R.A.    | 12 |
| VE1CU  | JAMES POWER      | 15 |
| VE1CV  | BILL WHITE       | 6  |
| VE1CY  | DON COURCY       | 14 |
| VE1DON | DON COCHRANE     | 7  |
| VE1DWH | DAVE HARRINGTON  | 7  |

|        |                   |     |
|--------|-------------------|-----|
| VE1DXR | STACEY BLACKMORE  | 14  |
| VE1DY  | PAUL PIKE         | 5   |
| VE1EAT | HERB MACLELLAN    | 7   |
| VE1EGG | ED GRACE          | 14  |
| VE1EIR | STEPHEN GIBBON    | 7   |
| VE1ELK | ERIC KEEBLE       | 5   |
| VE1EOS | ERWIN SCHOFIELD   | 9   |
| VE1FG  | MIKE LECLERC      | 24  |
| VE1FH  | JOHN PERKINS      | 5   |
| VE1GC  | BOB MCLEAN        | 23  |
| VE1GD  | ED LINARD         | 12  |
| VE1GE  | GUS CREWE         | 12  |
| VE1GWL | GEOFF LAURENCE    | 34  |
| VE1HBH | HAROLD HILTZ      | 8   |
| VE1HJ  | RALPH FRASER      | 29  |
| VE1HJD | HARRY DUNNINGTON  | 7   |
| VE1IF  | BOB SCHULTZ       | 15  |
| VE1JA  | RON DEMERS        | 19  |
| VE1JOT | JOHN OTOOL        | 10  |
| VE1KEN | KEN MARRIOTT      | 8   |
| VE1KQ  | ERIC HAYNES       | 11  |
| VE1LAW | DON LAWSAN        | 5   |
| VE1LF  | MIKE CLARKE       | 5   |
| VE1LR  | RICHARD O'CONNELL | 52  |
| VE1LT  | DOUG BUTCHER      | 56  |
| VE1MIC | MICHAEL DAIGLE    | 22  |
| VE1MUS | BARRY HALLETT     | 10  |
| VE1NF  | WAYNE MEISNER     | 7   |
| VE1NP  | BILL ROBINSON     | 6   |
| VE1NSR | ROSE MCKENZIE     | 8   |
| VE1OB  | HAL BISHOP        | 6   |
| VE1OHM | HOWARD HARAWITZ   | 20  |
| VE1OT  | BRYSON GUPTILL    | 15  |
| VE1PCP | CLUB TPARC        | 5   |
| VE1PN  | HARRY HILLYARD    | 8   |
| VE1RDA | DICK DENMAN       | 9   |
| VE1RGD | ROBERT DWYER      | 22  |
| VE1RJ  | RAY BILLARD       | 44  |
| VE1RJP | BOB PERRY         | 20  |
| VE1RO  | RANDY KING        | 27  |
| VE1RP  | BOB DAVIDSON      | 27  |
| VE1RQ  | TERRY GILLESPIE   | 19  |
| VE1RX  | TIM HEMMING       | 47  |
| VE1SAT | KEN MACDONALD     | 6   |
| VE1SJO | STEPHEN O'REILLY  | 9   |
| VE1SRD | DAVE SCOTT        | 30  |
| VE1SU  | JOHN B. GILLIS    | 5   |
| VE1UA  | WIETSE RATSMA     | 121 |
| VE1UU  | CARL ANDERSON     | 32  |
| VE1VCR | DOUG RANKIN       | 26  |
| VE1VCS | GORDON STOODLEY   | 5   |
| VE1VM  | RICK RYAN         | 29  |
| VE1VS  | DAVID PARSONS     | 22  |
| VE1VW  | DAVE THORNE       | 6   |
| VE1VX  | MEL LEVER         | 26  |
| VE1WAG | BRIAN WAGNER      | 8   |
| VE1WFH | WAYNE HOUNSEL     | 19  |
| VE1WLS | WILLIAM SAFIRE    | 9   |
| VE1WQ  | GARNETT HILTZ     | 8   |
| VE1WWR | BUD PARSONS       | 7   |
| VE1XC  | RON SABISTON      | 71  |



From the ARRL Letter

### "SUITSAT-1" Launched from ISS

"SuitSat-1" is orbiting Earth! ISS Expedition 13 flight engineer Valery Tokarev released the unique satellite into orbit February 3 at 2303 UTC as he and ISS Expedition 12 Commander Bill McArthur, KC5ACR, began a six-hour space walk. SuitSat-1 consists of a discarded Russian Orlan spacesuit reconfigured to function as a free-floating Amateur Radio transmit-only satellite. Activated at 2259 UTC, the satellite was programmed to come to life some 16 minutes later on 145.99 MHz. The 16-minute delay is said to be a crew safety measure. SuitSat-1's deployment over the south-central Pacific Ocean was the first task of the space walk.

"Dosvidanya! Good-bye, Mr Smith!" Tokarev said in Russian as SuitSat, unhooked from its tether and pushed away from the space station, tumbled slowly away into the void. "It's moving at the specified acceleration." A project of the Amateur Radio on the International Space Station (ARISS) program <<http://www.rac.ca/ariss>>, SuitSat drifted off until it appeared as a mere speck silhouetted against brightly illuminated Earth below.

The NASA trajectory operations officer at Mission Control called it "a good deploy within the cone for safety to ensure no re-contact with the International Space Station." NASA-TV provided live coverage of the space walk and SuitSat-1's release.

SuitSat-1 will transmit its voice message "This is SuitSat-1 RS0RS!" in several languages plus telemetry and an SSTV image on an eight-minute cycle as it orbits Earth. The 3 batteries powering the satellite are expected to last about a week. SuitSat-1 should re-enter Earth's atmosphere after several weeks circling the globe.

SuitSat-1's 500 mW transmitter will report mission time, suit temperature and battery voltage (28 V is nominal) down to Earth. Its single Robot 36-format SSTV image is said to be similar in resolution to a cell-phone quality picture. SuitSat-1's signal should be strong enough to hear using a VHF transceiver or scanner and a simple antenna. Its payload also includes a CD containing hundreds of school pictures, artwork, poems and student signatures. JH3XCU/1 in Japan posted the first reception reports, noting a weak signal.

Those who copy the SuitSat-1 transmissions on 145.99 MHz are asked to post a real-time report on the SuitSat Web site <<http://www.suitsat.org/>>, which contains additional informational links. Initially, its orbit will approximately coincide with that of the ISS. Later, as SuitSat-1's orbit begins to decay, it may show up a few minutes earlier than the space station. The AMSAT Web site offers a listing of ISS passes <<http://www.amsat.org/amsat-new/tools/predict/>> and a graph showing the position of the ISS <<http://www.amsat.org/amsat-new/tools/predict/satloc.php?lang=en&satellite=ISS>>

ARISS invites schools and other educational groups--formal or otherwise--to post educational outreach reports and SSTV images via e-mail <[suitsat@comcast.net](mailto:suitsat@comcast.net)>

ARISS International Chairman Frank Bauer, KA3HDO, credits ARISS-Russia's Sergei Samburov, RV3DR, and his colleagues with coming up with the spacesuit-cum-satellite concept. SuitSat-1--called Radioskaf or Radio Sputnik in Russian--is a first test of that idea, he says. If successful, there's another unneeded Orlan spacesuit still aboard the ISS.

For a SuitSat-1 QSL, send signal reports accompanied by a large (9x12 inch) self-addressed, stamped envelope to the appropriate address:

\* USA: ARRL, SuitSat QSL, 225 Main St, Newington, CT 06111-1494 USA

\* Canada: Radio Amateurs of Canada, SuitSat QSL, 720 Belfast Rd--Suite 217, Ottawa, ON K1G 0Z5 Canada

Students will receive a certificate commemorating their reception. Those who receive the SSTV picture or copy the "special words" will get a special endorsement on their certificate. The special words--in English, French, German, Spanish, Russian and Japanese--are embedded in the pre-recorded greetings in multiple languages from students around the globe.

Additional information about SuitSat on the AMSAT Web site <<http://www.amsat.org/amsat-new/articles/SuitSat/>>. See "This is SuitSat-1

RS0RS!" by Frank Bauer, KA3HDO <<http://www.amsat.org/amsat-new/articles/BauerSuitsat/index.php>>.

ARISS is an international educational outreach with US participation from ARRL, AMSAT and NASA.

Article from METRO. Tuesday, November 1, 2005

Courtesy of by Chris, VA1CDB

Neighbours in an Ottawa neighbourhood want to cut down a wooden pole that is linked to CBC Radio's 1 p.m. time signal over concerns kids could climb it and fall off. The time signal has been heard everyday since 1939. Source: CBC News Online

The Pole was put up by J.P. Henderson, an astronomer and one of Ontario's first ham radio operators, at his Perth Street home for his antenna from which he broadcast, among other things, a time signal. Source: CBC News Online.

<http://www.cbc.ca/story/canada/national/2005/10/19/time-signal-pole051019.html>

<http://ottawa.cbc.ca/regional/servlet/View?filename=ot-pole20051018>

*Q: Why do female black widow spiders kill their males after mating?*

*A: To stop the snoring before it starts.*



**Radar** From the Columbia Encyclopedia, Second edition, 1950

The radio detecting and ranging device which made possible in the Second World War the location of enemy planes and ships and the precision bombing of enemy targets. First put into operational use by the British in 1935, Allied technicians improved it steadily throughout the war. A radar instrument consists of a transmitter which sends out short radio waves (microwaves traveling at the speed of light); an antenna which concentrated the waves into a directed beam as the signal is sent out and a receiver which receives the echo when the beam strikes an object and is reflected; a receiver; and an indicator. The indicator usually consists of one or more cathode ray tubes which act as a radar screen. Pulses of light flash across the screen, the period of pulsation equaling the frequency of the radar waves and appearing to the human eye as a single beam of light. Echoes from radar "strikes" appear as "v" shaped depressions (pips) on the light beam their location on the beam giving the range of the target. The direction of the target may be found by revolving the antenna to find the point at which the echo is strongest or by synchronizing the cathode beam so that it revolves on the screen in conjunction with the antenna. (Thus pips or images are indicated at degree bearing of the target.) Calibration of the reception time lag of 2 antennae of different heights gives it altitude. After its successful use for the detection of German planes, a vital factor in the Battle of Britain in 1940, radar played an increasingly important role throughout the war. Bombing through overcast (BTO) was made possible by a form of radar which gave the bombardier a televised "map" of the terrain below. Long-range bombing missions were guided to targets by radar beams. Radar detectors adapted as fire control mechanisms directed naval and anti-aircraft fire which destroyed enemy ships and plane unseen in fog or darkness. Small sets built into Allied fighter planes permitted them to find track & destroy enemy aircraft at night. A miniature radar, set small enough to fit in the head of an artillery shell and called a VT or proximity fuse was developed. The pulses from this fuse exploded the shell when it came within a specified distance of any solid object. It replaced the time fuse and proved a natural adjunct to radar-directed gunnery. To overcome radar's inability to discriminate between enemy and friendly objects IFF (Identification, Friend or Foe) was developed. This consisted of a transmitter placed aboard Allied surface vessels and aircraft which was "triggered" into action when hit by a radar beam, causing it to emit a pre-arranged coded signal. Perhaps more than any other military development radar has been and is being adapted for peacetime use. Commercial airliners are now equipped with radar devices which give warning of obstacles in their path and accurate altitude readings. Planes can land at airports equipped with radar-assisted ground-controlled approach (GCA) systems, in which the plane's flight is observed on radar screens and skilled operators radio landing directions to the pilot. Radar is also used to measure distances and map geographical areas (Shoran), in navigation and position fixing at sea (Loran) and meteorological studies. While the value of radar in astronomy has not been determined, the moon was first reached by radar beam in 1946.

The ARRL Contest Branch page is at  
<http://www.arrl.org/contests/>

And <http://www.hornucopia.com/contestcal/weeklycont.html>

*The main purpose of holding  
children's parties is to remind  
yourself that there are children  
more awful than your own.*

From the ARRL Letter, Vol. 24, # 44,  
**SSETI Express is now OSCAR 53:**  
AMSAT-NA has designated the now-problematic The Student Space Exploration and Technology Initiative (SSETI) Express satellite as OSCAR 53--XO-53 for short. Launched Oct. 27, the satellite, which carries an Amateur Radio package and deployed 3 ham radio cubesats, went silent after about five orbits. Based on telemetry received during its short period of operation, SSETI Express Project Manager Neil Melville cited an apparent onboard power system anomaly. The spacecraft went into a "safe mode" due to an "under-voltage" condition caused by battery charging problems, Melville has said, adding that ground-based hardware tests confirm the possibility of a further failure mode of the specific component that would allow the batteries to charge and the spacecraft to resume operation. In thanking AMSAT's Bill Tynan, W3XO, and the AMSAT Board for notifying the project of the designation, Melville remained upbeat. "As you are no doubt aware XO-53, to use its new designation, has some significant problems right now," he said. "However, we remain vigilant and hopeful, perhaps it can be recovered." Graham Shirville, G3VZV, says analysis of the actual cause of SSETI Express's problems continues, and a full review will take place later this month. Shirville says a number of automated ground stations have been set up in Europe to listen for SSETI Express on 437.250 MHz. He also invites valid reception reports via e-mail from the Amateur Radio community, "and if you do hear it first we can promise you a bigger prize than just a special T-shirt!" he added. "We believe that there is a small but finite chance of recovery, so your efforts could be very worthwhile."

The HARC Reflector is also available on the web (a little after the paper copy) courtesy of Rob Ewert, VE1KS, by connecting to  
[www.halifax-arc.org](http://www.halifax-arc.org)

# Halifax Amateur Radio Club Minutes - Monthly General Meeting

Wednesday, January 18, 2006

President Bill (VE1MR) called the meeting to order at 1933 with 40 members in attendance.

Executive in attendance:

Bill Elliott (VE1MR) – President; Fraser MacDougall (VE1WO) – First Vice-president; Howard Dickson (VE1DHD) – Secretary; John Goodwin (VE1CDD) – Treasurer; Pat Kavanaugh (VE1PHK) – Station Manager, and Tom Caithness (VE1GTC) – Member-at-Large.

Regrets: Darryl Perrin (VE1HUP) – Second Vice-president; Dick Grantham (VE1AI) Past-president

Silent Keys: There were no silent keys to report.

Guests / Visitors. Shane Mc Dougall (VE1SMC); Randall King (VE1RO); Jason Ingraham (VE1PYE); Marketa Skala (VE0MAR);

Raoul Kluge (VE0RAM); Frank Wilson; Carol Wilson; and Peter Mac Pherson.

Executive in attendance:

Bill Elliott (VE1MR) – President; Rob Ewert (VE1KS) – 1<sup>st</sup>. Vice President; Howard Dickson (VE1DHD) – 2<sup>nd</sup>. Vice President – Murray Mac Donald (VE1MMD); Secretary – Fraser Mac Dougall; Treasurer – Brian Allan; Club Station Manager; Dick Grantham (VE1AI) Past President.

Regrets: Craig Mac Kinnon (VE1JMA) Member at Large.

Minutes of the November 16, 2005 monthly general meeting: It was moved by John (VE1HMH) and seconded by George (VE1GAB) that the minutes of the November 16, 2005 meeting, as printed in the January edition of the Reflector, be adopted. Motion was carried.

Executive Reports:

Treasurer's report: Fraser (VE1WO) reported that the current bank balance was \$8,650.76. Following a re-

view of the financial report, it was moved by Dick (VE1AI) and seconded by Jim (VE1JIM) that the Treasurer's Report be accepted. Motion was carried.

Secretary's report: Murray advised that a large number of inaccuracies were discovered in a recent check of the club's data bank. He encouraged anyone who had changed / changes either their phone number or address to advise Tom (VE1GTC).

President's report: Bill (VE1MR) reported that he had nothing to report at this time.

1<sup>st</sup>. Vice President's report: Rob (VE1KS) reported that there was a problem with the 940 repeater, and that Bill (VE1MR) was scheduled to work on repairing it.

2<sup>nd</sup>. Vice President's report: Howard (VE1DHD) advised that there would be two (2) door prizes for the evening draw – a HARC shirt and a copy of Hammond's book. He advised that the entertainment for the evening consisted of a presentation, by himself, on two recent DXpeditions and a review of recent IOTA statistics by Fred (VE1FA).

Station Manager's report: Brian (VE1AZV) reported that the four (4) PCs are up and running. He is waiting to have a network established within the station pending a determination of where the modem will be placed. He reported that the station antennas required repairs. A work party will be established in the spring to conduct the necessary repairs. As a result of problems with the air quality in the building, it is necessary to move the club equipment currently in the storage area. A work party has been established to commence the move scheduled for January 20<sup>th</sup> at 1900. Brian also advised that a clean up had taken place at the station.

Member at Large: Craig (VE1JMA) sent his regrets and advised that he had nothing to report.

Past President's report: Dick

(VE1AI) reported that DX for Windows has been ordered. Apparently the supplier is experiencing a delay in delivery due to a shortage of manuals, and that the program will be shipped following receipt of the manuals.

Committee reports:

Membership: Tom (VE1GTC) reported that there were sixty-five (65) members signed up for 2006 (45 full, 18 associate and 2 life).

Search and Rescue: No report was received.

EMO: No report was received.

Flea Market: Murray (VE1MMD) gave an update on the flea market. It was agreed that the doors would open at 0900 for buyers. He reported that a number of invites have been mailed out to suppliers, RAC and NSARA. He also advised that notices have also been placed on the RAC, Ontario Swap Shop, and the HF- Radio net web sites.

DX Forum: Brian (VE1AZV) reported that a planning meeting has been scheduled with Howard (VE1DHD) and Scott (VE1QD) to firm up plans for the Forum. He will report on this matter at the next monthly meeting.

H.F. Course: Howard (VE1DHD) reported that plans are well under way. He invited input from the club members and asked anyone planning on attending to advise him of their intentions.

Old Business:

Course: Scott (VE1QD) reported that the course is going well. He advised that he had brought a number of lead acid batteries of various voltages for anyone who could find a use for them. There are still a limited number in the club station.

There was no further old business.

New Business:

2006 Budget: Bill (VE1MR) presented a proposed budget which had been approved for presentation to the

(Continued on page 7)

**HARC Minutes - Monthly General Meeting – Wednesday, Jan.18/06** (Continued from page 6)  
monthly meeting by the executive. Following discussion and elaboration, it was moved by Howard (VE1DHD) and seconded by Richard (VA1CHP) that the proposed budget for 2006 be approved. Motion was carried.  
Bill (VE1MR) reported that the budget contained funds to provide training for additional members to become certified as climbers. If you are interested in being considered for the course, please let Bill know.

**EMO Training:** Tom (VE1GTC) reported that two (2) EMO communication courses are slated for February 11<sup>th</sup> and Feb. 25<sup>th</sup>. If you are interested in attending, please let Tom know.

**Guides on the Air:** Helen (VA1YL) advised that Guides on the Air is scheduled for February 18<sup>th</sup> and 19<sup>th</sup>.

**Kids' Day:** Dick (VE1AI) reported on the recent ARRL Kids' Day. There is another Kids' Day scheduled for June, and encouraged members to participate.

**Maritime Contest:** Bill (VE1MR) reminded members that the Maritime Contest is scheduled for January 29<sup>th</sup> for CW, and February 12<sup>th</sup> for SSB. The hours of operation for the contest are 7-11 am and 2-6 pm. Plaques and certificates will be awarded.

**ISS:** George (VE1CAW) reported that ISS has been very active lately.

**Requests:** Shane (VE1SMC) requested, on behalf of the Queen's County club, permission to link into the PSR repeater on Friday evenings. Permission granted. Also, Lunenburg County will be linking to MAVCON as a back-up

**50/50:** The 50/50 draw in the amount of \$25.00 was won by Spud (VE1BC)

**Door Prizes:** The HARC shirt was won by Jason (VE1PYE) and the Hammond book was won by Ralph (VE1RAR).



It was moved by Bob (VE1TXL) that the meeting be adjourned.

Meeting adjourned at 2018.

Respectfully submitted,

Murray Mac Donald, VE1MMD Secretary, Halifax Amateur Radio Club

Next Meeting: February 15th at 1930 in the club facilities.

From an article in the Montreal Gazette; September, 2005.  
(This is not radio-related but most of us do have vehicles)-ed

Mercedes and other car companies have been trying to develop **practical hydrogen power for vehicles** for at least the past 30 years. A Canadian businessman, Joe Williams Sr., owner of Innovative Hydrogen Solutions believes he has the right machine to work as part of a hybrid petroleum/hydrogen solution. Williams has developed a Hydrogen Generating module (H2N-Gen for short) which increases fuel efficiency of an internal combustion engine (be it gas, diesel, propane/natural gas), reducing fuel consumption by 10 to 40 percent and reducing emissions by up to 100%. One large problem with using only hydrogen as the fuel for a vehicle is storage of the hydrogen. The H2N-Gen manufactures only enough hydrogen to feed the engine at a given time. There is no on-board storage of hydrogen gas and no hydrogen under pressure. Current from the vehicle's battery produces hydrogen and oxygen by electrolysis. Third party verification testing by Wardrop Engineering Inc. of Toronto who built their own unit to Williams' design and tested it, confirming Williams' claims. If all goes smoothly the unit could be on the market in 6 to 12 months. At \$7,500 for a 30-pound unit for a diesel truck, the unit would pay for itself (with average truck usage) in 8 months. A unit is expected to last for 10 years and requires only refilling the unit with distilled water every 80 hours of engine use.



Tune in to the **EMO NET** conducted by David, VE1EDA, each Sunday evening at 1930 local (7:30 PM) on VE1PSR repeater (147.27).

*Ham and eggs. A day's work for a chicken,  
a lifetime commitment for a pig.*

### EMO

Communications systems interoperability or rather the lack of it, is something agencies in the Halifax area confront too often. But this difficulty is by no means unique to us. An article in the Jan.9 issue of the Tampa Tribune described the response to a 911 call about 2 people clinging to a sinking boat by "Tampa police along with fire & rescue units, a Hillsborough sheriff's helicopter and a Coast Guard vessel. Plenty of help — but not very effective. One department could not talk to another because they have different radio systems."

"They couldn't communicate quickly & directly." said Capt. Bill Wade, Tampa Fire Rescue.

Brad Herron, the Manager of the Hillsborough Sheriff's radio system was quoted "In an idea world every agency has the same system but politically it never works out that way." The article also said that 2 agencies with 800MHz systems couldn't communicate because their 2 systems were built by different manufacturers and used different protocols.

*In filling the communications gap, amateur radio has been a welcome help to our own Emergency Measures Organization. Operators generally provide their own radio gear when they arrive at an emergency site and, while usually not trained as professional emergency responders, hams bring a variety of skills from their own experiences. -ed.*

*To steal ideas from one person is plagiarism;  
to steal from many is research.*



**From the Mail Bag**

*Why doesn't Tarzan  
have a beard?*

Hi guys, have a look at the RXclus DX Cluster telnet program. It is the best program I have come across and the good part "free"...Hi! It will do allot but one of the neat features is that you can run four Clusters at once in any configuration you like, either a RF Packet Link to your local Cluster and three Telnet Clusters or four Telnet Clusters. I see a new version has just been released as well. The user manual is included in the program.

<http://rchalmas.users.ch/rxclus/>

Here is the user manual for DX Spider Cluster, the VY2CC DX Cluster which I use, if you should decide to connect to our Cluster or any of the DX Spider Clusters. [http://www.dxcluster.org/main/usermanual\\_en.html](http://www.dxcluster.org/main/usermanual_en.html)

73 - Ken VY2RU

**RADIO SHACK IS BACK**

Rob VE1KS

After legal wranglings and other twists and turns, Radio Shack is coming back. The Canadian operation lost its franchise and all stores were bought out by Circuit City/Source. Radio Shacks parent company has set up a new Radio Shack Canada company and they will be establishing stores across the country again. To read the confusing details, go to [www.radioshackisback.com](http://www.radioshackisback.com)

And in a historical note, did you know that Radio Shack started out as a single store selling ham radio gear?

From the ARRL Letter, Vol. 24, No. 42, October 28, 2005, When a telephone outage occurred in Southern California October 18, the Long Beach Emergency Communications & Operations Center (ECOC) declared a "communication failure protocol," and ARES/RACES members and other ham radio volunteers stepped in to help. The outage disabled 911 service in communities along the coast and through parts of Los Angeles and Orange counties. It also cut off at least 150,000 telephone and Internet service customers for up to 12 hours along with many cell phone users. Radio amateurs worked with police and fire officials to support the departments with auxiliary communications. Hams also were stationed at 17 of the largest nursing homes. The emergency net successfully relayed traffic through the ECOC to the hospitals, nursing homes and ambulance services, ensuring access to 911. When the City of Long Beach built its new ECOC three years ago Emergency Services Coordinator Casey Chel, KD6DOV, had the foresight to include a complete Amateur Radio facility for those rare occasions when all other communication systems might fail. Those plans paid off on October 18.

--Associated Radio Amateurs of Long Beach

The AMSAT-NA Web site is <http://www.amsat.org>

**NOTICE**

We are preparing to experiment with a tone on VE1HNS. In the next few weeks we will be putting a PL encode tone of 82.5 Hz on the transmitter. This will make no difference how you use the repeater but if you can use tone coded squelch your radio will only receive that frequency when the transmitter is active.

Following that we plan to put a tone of 82.5 Hz on the receiver. This will be able to be turned on and off. When on there will be an announcement to tell you to use a tone of 82.5. Normally the receive tone will not be enabled but will be available if needed in times of interference with the receiver, either because of intermod or perhaps enhanced signals from users on other repeaters on the same frequency.

We are also going to experiment with an encode tone of 82.5 Hz on VE1PSR. It will probably be a while before this is in place. Again this will only be on the transmitter so normal operation will be no different, but when implemented using tone coded squelch will cut intermod from your received signal.

**NOTICE**

During the calling for the Christmas dinner we found many members telephone numbers were incorrect. If you have changed your phone number due to moving or changing service providers please let Tom, VE1GTC know so our membership records can be kept up to date. If you don't want your phone number to appear in the callbook please note that. Check the current callbook to see if your phone number is correct.

From the ARRL Letter, Vol. 24, #12

The 40 meter band in the British Isles effectively doubled in size when radio amateurs there gained access to 7100 to 7200 kHz..

The change is a result of actions taken during World Radiocommunication Conference 2003, where conferees agreed to move broadcasters out of 7100 to 7200 kHz in Regions 1 and 3 to make room for the Amateur Service.

The UK and Ofcom-administered regions join the Republic of Ireland also Croatia, Norway and San Marino among Region 1 countries that have authorized access to the additional spectrum on a secondary basis. The WRC-03 change does not formally go into effect until 2009

*Tech support: What anti-virus program do you use?*

*Customer: Netscape.*

*Tech support: That's not an anti-virus program.*

*Customer: Oh, sorry...Internet Explorer.*





*An article I received from the Clearwater Amateur Radio Society email list.*

73, Bob Swinwood, VE1PQ/W4

Era Ends: Western Union Stops Sending Telegrams  
By Robert Roy Britt, LiveScience Managing Editor

After 145 years, Western Union has quietly stopped sending telegrams.

On the company's web site, if you click on "Telegrams" in the left-side navigation bar, you're taken to a page that ends a technological era with about as little fanfare as possible:

"Effective January 27, 2006, Western Union will discontinue all Telegram and Commercial Messaging services. We regret any inconvenience this may cause you, and we thank you for your loyal patronage. If you have any questions or concerns, please contact a customer service representative."

The decline of telegram use goes back at least to the 1980s, when long-distance telephone service became cheap enough to offer a viable alternative in many if not most cases. Faxes didn't help. Email could be counted as the final nail in the coffin.

Western Union has not failed. It long ago refocused its main business to make money transfers for consumers and businesses. Revenues are now \$3 billion annually. It's now called Western Union Financial Services, Inc. and is a subsidiary of First Data Corp.

The world's first telegram was sent on May 24, 1844 by inventor Samuel Morse. The message, "What hath God wrought," was transmitted from Washington to Baltimore. In a crude way, the telegraph was a precursor to the Internet in that it allowed rapid communication, for the first time, across great distances.

Western Union goes back to 1851 as the Mississippi Valley Printing Telegraph Company. In 1856 it became the Western Union Telegraph Company after acquisition of competing telegraph systems. By 1861, during the Civil War, it had created a coast-to-coast network of lines.

Other company highlights:

- \* 1866: Introduced the first stock ticker.
- \* 1871: Introduced money transfers.
- \* 1884: Became one of the original 11 stocks tracked by the Dow Jones Average.
- \* 1914: Introduced the first consumer charge card.
- \* 1964: Began using a transcontinental microwave beam to replace land lines.
- \* 1974: Launched Westar I, the first U.S. dedicated communications satellite.

On Jan. 26, the last day you could send a telegram, First Data announced it would spin Western Union off as an independent, publicly traded company.

From the Regina newsletter; forwarded by Rob, VE1KS.

### CANADIAN RADIO PIONEER REMEMBERED

December 2005 marked the 100th anniversary of one of the most significant events in the history of amateur radio. One day in December 1905, an engineer at a receiving station based at Machrihanish in Scotland was listening in when - to his astonishment - he heard the voice of Reginald Fessenden. What made this so special was that Fessenden was at the time in North America - this was the first time that a voice transmission had been copied across the Atlantic.

Remarkably, it was purely by accident. Fessenden - a talented if eccentric Canadian scientist - had actually been talking to another station in Maryland, USA but, thanks to the wonder of propagation, his signal made its way across the Atlantic.

This was not the only first achieved jointly by Fessenden and the Machrihanish station. A month later, after the Scottish station had been readied for transmission, it and Fessenden undertook the first ever two way CW radio contact across the Atlantic. In this respect, Fessenden was ahead of his great rival Marconi who at that point had only achieved a one-way crossing.

Fessenden was also in 1900 the first to use HF alternators and first to superimpose the human voice on radio transmissions. He also made the first radio music broadcast, on Christmas Eve 1906. His other achievements include inventing AM and writing over 500 patents. And yet, despite his great contribution to radio, he rarely received the credit he deserved, and died in 1932 a largely forgotten man. Meanwhile, his arch competitor Marconi had become a legend.

There was also to be a sad ending for the Machrihanish station with which Fessenden achieved his pioneering radio contacts. The station was closed down in December 1906 - less than a year after the first two-way CW contacts across the Atlantic - after severe gales blew down its mast.

(Thanks to the RSGB)



### Answer to puzzler on page 2

A Quagi antenna is a type of VHF antenna that uses a quad driven element in conjunction with regular yagi type directors.

*Customer: I can't get on the Internet.*

*Tech support: Are you sure you used the right password?*

*Customer: Yes, I'm sure. I saw my colleague do it.*

*Tech support: Can you tell me what his password was?*

*Customer: Five stars.*





Go to URL

<http://www.qsl.net/n9bor/morse.htm>

That link will take one to absolutely everything -- EVERYTHING! a person would ever want to know about CW, including formats for typical messages, etc. Gary, VE1RGB

The RST system is a means of quickly telling the other station a wealth of information with just 3 numbers. When you say to someone 'RST 469', they immediately know you are having a little trouble copying them (4), they know you are hearing them at a good level (6), and their signals are in good shape with no hum or buzz (9). These 3 numbers are independent of one another, and simply because a station is very weak, you can still be copying perfectly, and his tone can still be perfect. This would be an RST of 529. I have heard some stations improperly giving out RST's of 555 or 577 when the other station had a perfect tone. They somehow think the T should track with the S, and if the sig is weak, the T number should be lower. This is completely wrong.

Nowadays, virtually every signal you hear is a T9. The meanings of T1-T8 are throwbacks to the early days of radio when you really could hear a T1 signal. Oh, occasionally you will hear a station with some hum, buzz, or ripple, and should give them a T7 or T8.

In addition to the three numbers, once in a while a letter is added to the end of the 3 numbers. These letters are: X meaning the signal is perfectly steady like a crystal controlled signal; C meaning the signal sounds chirpy as the frequency varies slightly with keying; and K meaning the signal has clicks. X is a throwback to the early days of radio when such steady signals were rare. Today most all signals could be given an X and it is hardly ever used. It is helpful if you hear a chirpy or clicky signal to use the C or K, e.g. 579C or 579K.

The following lists the values and definitions of the R, S, and T.

This list courtesy of K3WWP's Ham Radio Activities <http://home.alltel.net/johnshan/>



### R Readability

- 1 Unreadable
- 2 Barely readable, occasional words distinguishable
- 3 Readable with considerable difficulty
- 4 Readable with practically no difficulty
- 5 Perfectly readable



### S Signal Strength

- 1 Faint signals, barely perceptible
- 2 Very weak signals
- 3 Weak signals
- 4 Fair signals
- 5 Fairly good signals
- 6 Good signals
- 7 Moderately strong signals
- 8 Strong signals
- 9 Extremely strong signals



### T Tone

- 1 Sixty cycles or less, very rough and broad
- 2 Very rough ac, very harsh and broad
- 3 Rough ac tone, rectified but not filtered
- 4 Rough note, some trace of filtering
- 5 Filtered rectified ac, but strongly ripple-modulated
- 6 Filtered tone, definite trace of ripple modulation
- 7 Near pure tone, trace of ripple modulation
- 8 Near perfect tone, slight trace of modulation
- 9 Perfect tone, no trace of ripple, or modulation of any kind

100 years ago in 1905 Norwegian explorer Roald Engbreth Gravning Amundsen sailed his 47 ton fishing boat, Gjoa, out of the western end of the Northwest Passage as the first captain in recorded history to cross it from end-to-end. It took him and his 6-man crew 2 years. To get the news out, when his ship Gjoa was beset by ice near Herschel Island, off the Yukon's north coast, he set out by dog sled, travelling southward nearly 800 km to reach the nearest telegraph office near Eagle City, Alaska. He had to telegraph home collect; the message cost \$700.

*from an article by James Raffan, printed in the March 2005 issue of Up Here magazine*

From the ARRL Letter, Vol. 24, No. 16

### First 47-GHz moonbounce

The team of Al Ward, W5LUA, Barry Malowanchuk, VE4MA, Gary Lauterbach, AD6FP, and Sergei Joutiaev, RW3BP, have announced the completion of the first 47-GHz Earth-Moon-Earth (EME) contacts. RW3BP copied the first lunar echoes on 47 GHz in August 2004. That same month, he was heard by AD6FP, W5LUA, VE4MA and VE7CLD. Since the receipt of the first 47-GHz echoes via the moon, numerous tests between RW3BP and AD6FP led to improvements by Joutiaev allowing him to copy calls in January from Lauterbach's lower-power signal. As of April 16, AD6FP, W5LUA and VE4MA have each completed a CW QSO via the moon with RW3BP. "Since Doppler shift can be as much as 100+ kHz at 47 GHz, one must continuously adjust the receive frequency to keep the station centered in the passband," Ward explained. Ward says the operators used various techniques to keep the v Doppler-shifted frequency in the receivers' passbands.



The HRM EMO/ham Advisory Committee Web page is at [www.ve1hre.ca](http://www.ve1hre.ca)

*Nobody cares if you can't dance well. Just get up and dance.*